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FIRST DETAILED INTERROGATION ON REPORT ON

BARTHEL Thomas

NRUFFOS

| F.P. No. : 05018 Daptured : Arrested by CIC at BRESCIA on 13 Jul 45 Secret No : M 45/780 Interrogated : CSDIC, CMF, 21 - 24 Aug 45 | Segret No | · M 45/780 |
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| 0.S.D.I.C., C.M.F. 31 Aug 45 $Cond, CSDIC, Cond, CSDIC, CANA, $ | |

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1. PREAMBLE

FW is a fairly bright, solf-confident young man of 22 who claims to be anti-Nazi and that he decided to leave the German Army sometime last autumn. When the war began he was about to study geography at BERLIN University. He speaks English, Italian, Norwegian and Swedish. He gave information willingly and appears to be aware of the interest the Allies show in the matters of which he has knowledge. Unfortunately, he has neither the good memory for detail nor the technical skill of either DOST or COELER, so that most subjects on which he has information are already known in greater detail than he could provide. His information is however reproduced in tote, because it provides a check on the two FW mentioned above, and also completes certain gaps in the picture.

Reliability : Fair.

2. HISTORY AND DOVE ENTS

| 25 Aug 41 30 Aug 41 | Called up to 6 Coy, 3 Sigs Depot Bn, POISDAL. Transferred to 3 (Hallish-speaking) Coy, Sigs Interpreters |
|----------------------------------|---|
| | Depot Bn, MEISSEN. Posted to OKH IN 7/VI for a course on cryptography, lasting |
| 20 Oct 41 | three months. |
| bog Jan 42 mid Apr 42 | Posted to ENGLIND Referat in ONH IN (/VI- Transforred to 9 Fixed Intercept Sta (FILST 9), then forming |
| | at FRANKFURT a/Main. With unit to NORMAY. |
| beg Jul 42 Aug 44 | With unit to SANDREGO (Province of VICENZA) where the unit was gradually disbanded. PW posted to 7 Intercept Evaluation Sec (NAASE 7) at BETCANZE, nr VICENZA. |
| 10 Mar 45 25 Apr 45 Jun 45 | Went over to Partisans together with Cpl DANDA Henry. With Brigata MONTE SUELLO ("Justizia e Liberta" formation). Writing report for "PATRIOT BRANCH" at BRESCIA explaining his |
| beg Jul 45 | While waiting for results of above, went to BRESCIA and found a job with AG in the Finance Dept. |
| 13 Jul 45 | Arrested by CIC, interrogated, and sent to VERONA. |

3. WORK AT OKH IN 7/VI, ENGLAND REFERAT, (Jan - Apr 42)

A. The WOC-ME

A 4-figure code used in conjun**tion** with continuous recipher. Traffic intercepted was originated in ME. The code was broken by means of depth obtained from "periodicity" (PH_SINGLEICHHEIT) of the recipher. The weakness of the system was the way in which the spelling was indicated, i.e., speller indicators enabled spelt portions of a message to be treated as a simple substitution cipher ("Buchstabierstellen konnten praktisch als einfacher Caesar geloest worden").

B. The IDC

PW states that all he knows about this code is that it was used in Diplomatic Traffic. He states he has no knowledge of how it was read, broken or deciphered, except that he does know the basic book had been captured.

C. Rosoarch

While in the ENGLAND Referat PW worked for a time in a small group under Dr. SCHULZ trying to break any new code or eigher systems used in .E., figure traffic only. However NO results were obtained (I.O.'s Note:- this traffic may be the unrecognised WOO-HE traffic of which COELER knew so little).

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4. WORK IN 9 FIXED INTERCEPT STA (FRAST 9) - Jul 42 - Aug 44

PW was caployed on British, USA and Swedish codes and ciphers while with this unit.

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... BRITISH SYSTERS

I. The EC 5

In uso in 42 - 43. It was a simple code-table containing clear text in alphabetical order inside columns. Code groups were recipiered by means of hatted alphabets which were provided on fixed cursors. Code groups were letterbigrams, and traffic was sent in 5-letter groups. Tactically valuable material was intercepted in .FRIC... In UK traffic was mostly practice material. Canadian units stationed in the South of INGLAND had their own EC tables. The use of this field code was stopped at beginning 44.

II. The EC 12

Traffic in this field code appeared in NORTH .FRIC. in 42 - 43. It was a dovelopment of the EC 5. ... code group of 2 letters was reciphered to a group of 4-figures which was then signalled. Reciphering took place following a co-ordinates system, which was afterwards hatted before signalling. It was actually worked on and broken in BERLIN.

III. The SLIDEX

This was worked on since by 44. It was developed from the early EC 5. It was a far better system, especially as it enabled three variants for clear text (DRATEMONE BUCHSTABENBELEGUNG) and "double-variants" for clear SWITCH-ON and SWITCH-OFF. At the same time, the variable cursor system often resulted in settings which allowed the "pairing up" of messages set on the same lines, or on the same columns. Parts of the cursor-settings could often be reconstructed, even before the text was broken.

(a) The EC 30/3

The SLIDEX referred to by the Germans as the EC 30/5 was reconstructed by 9 Fixed Intercept Sta in Hay 44. Traffic intercepted had been originated by ALOS Links (FLIVONETZE) in UK. Control of these links was always at Corps level and reading of traffic gave an insight into Corps 0 of B, etc. Fi states that traffic was British and not american and that as far as he could make out the LOS were army and RAF officers. The Germans were very surprised to see that this field-code, without any alteration whatsoever, was used by the LLOS links on D-day and a good few weeks after 6 Jun 44, allowing the energy to discover at once the Corps 0 of B, with dotails down to Bdes. This kind of work was handed over to 5 Intercept H9 at ST GERALIN at ond Jun 44. This unit succeeded in reconstructing several more SLIDEX tables, to which were added captured specimens during summer and auturn.

(b) The EC 30/20 (S and T)

The SLIDEX called EC 30/20 (3 & T) was reconstructed by 7 Intercept MQ. Traffic was originated by supply units of 8 army. Tactical messages had been read till end Sep 44, when they stopped - according to PV - and 4-figure traffic was signalled, which was suspected to be reciphered code, and was not broken.

IV. The LINEX

This system was in uso since Feb 45. It was worked on, but not broken. It was suspooted to be a combined substitution and transposition system. Traffic was sent in 4-letter groups, and indicators (KENNGRUPPEN) were also of 4 letters, and the number of letters in messages was signalled at the end.

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V. The CODEX

This had been in use in ITLLY before 1 Sep 44. PV referred to it as a "DECKNIMECODE". This code was read. A captured specimen had been in possession of the Germans since the days of the LEROS invasion.

B. US. SYSTERS

I The DFCs (Divisional Field Codes).

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(a) DFC 15

In use in auturn 42, broken in Jan 43. Traffic was intercepted on a frequency of 4080 Kes from US Army links in ICLL ND (stas at REYKJAVIK, AKUREYRI and BUDAREYRI). Stas used fixed call-signs till auturn 43, and thereafter daily call-signs. This field code was current for one month only. It was a 4-dotter code, non-alphabetical, with variants and use of "duds" (BLENDERN"). It was broken by assuming clear routine messages were the basis of the encoded text, such as Daily Shipping Report, Weather Forecast etc.

(b) DFC 16

This was current for one month, probably in Nov 42. It was similar to the DFC 15 above.

(c) DFC 17

This was current from Dec 42 to Feb 45. ...bout the latter date one or two copies of the table were captured. Very good unterial was intercepted from ICELIND, also from 6 (?) USINF links in Control ...INFIG., C.RIBBELIN SE. etc. Traffic was broken and read nearly up to 100%.

(d) DFC 21

This succeeded the DFC 17. Results were the same.

(c) DFC 25

Ourrent only in CARIBBEAN SEA area, and read in part.

(f) DFC 28

This succeeded the DFO 21 in summer 43. It was used by the ICHLAND links and the 28 (or 29) US Div in the South of ENGLAND. The code was read. Now and again it was reciphered by means of alphabet substitution tables ("eine int von Buchstabontauschtafel") changing daily. This method was broken because the systematic construction of the field code was known.

(g) DFC 29

L copy of this table was captured in autumn 43. It was never used, Fil did not know why.

II. The ...Cl

This was a US knew Adrin code, of no strategic value. Traffic in this code was passed by fixed US MT stas and bases abroad. The code was of the 5letter type, with about 60,000 groups, each page containing 90 groups. There were code-groups for complete phrases, but these were not used very often. PW thought that operators found it easier to encode text by taking clear single words rather than be bothered to look down the clear phrases column to find the required sentence. The code had been "captured" before 39 and all German crypto sees in the field were equipped with photostat copies. In NGALLY, 9 Pixed Intercept Sta took and read this traffic from summer 42 to autum 43.

III. The "TELAL"

This code succeeded the LC 1 in auturn 43. It was a simpler odition of the LC 1, with fewer variants provided, but built up on the same lines and of the same size. 9 Fixed Intercept Sta broke and reconstructed it to a large extent, with the help of the available LC 1.

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C. SWEDISH SYSTEMS. (...11 ... systems)

I. The SR. 1, SR. 5

These were described by FW as a "Rester" which could be revolved and turned ("cin Dreh-und Wende-Raster"). The table consisted of 20 columns, grouped in blocks of 5 columns each, and 15 lines, the total of 300 spaces being divided in one quarter blank and three quarters blotted spaces. This table was used as a stoncil on or through which 75 clear letters would be written. Text was written across horizontally, and read off downwards-along columns-block by block in accordance with a certain key, say 1, 4, 2, 3 where each digit stood for 5 small columns which were read off together. The complete stancil was then revolved by 180° for writing out of a further 75 clear letters, after which-if the text was long the stencil was turned on the other side, the right hand edge of the original side becoming the left hand edge of the turned-over side and vice-versa, with a further possibility of revolving this side through 180° also. Thus the stancil could be used four times, i.e. the text could be 300 letters long without rewriting over the same stencil area. PW states however that muncrous cases of compromises occured and that the stanoil was in actual fact a very simple system, used probably for training purposes for operators who were to use the HC. Raster below. Traffic was all read with comparative case. It was first broken in spring or summer 43.

II. The IG .- Raster

This was a ruch harder system, providing no comportise cases at all. After 9 Fixed Intercept Sta had failed to break it, material was sent to BERLIN and handed over to a German Foreign Office cryptographer who had knowledge of these Swedish Raster systems. This was due to the fact that the Swedish Foreign Office used Raster ciphers for their diplomatic counts. However, as far as PW know, no results were obtained at BERLIN either.

III. The SCs (SCHWEDEN CODE)

(a) SC2

Read in May 4.3. It was a simple field code in table form on the lines of the EC 5, but without disguising of cursor indicators or cursor-letters. Traffic indicators (IENDERUPPEN) were known to the Germans as giving the type of table which was being used. Thus STOST always proceeded traffic in the same table. This traffic was read, as well as tables with indicators STEST and STDST.

(b) <u>SC3</u>

Read in Apr 43. This was a simple, partly alphabetical, 3-letter field code. No reciphoring was used. The indicator (KERNERUPPE) used was SSCES. Tables also existed with indicators SSLES, SSESS and SSDSS.

(c) <u>SC4</u>

Read in Jun 43. It was a 3-letter alphabetical code ranging from apa to hhh, which FW described as voluminous ("unfangreich"), with 512 groups = 8³. No recipher was used.

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5. ORG. NIS. TION OF 9 FIXED INTERCEPT STATION (FESTE N. CHRICHTEN AUFKL. FRUNGSSTELLE 9)

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Cf : CSDIC/CIF/Y 30 para 3 E.II b)

. History

The unit, cover name ISTRID, was formed between May and Jun 42 at FRINKFURT a/Main. It left for NOR IN in Jul 42 and was first stationed at TRONINJE. Later at DRIMIN, and in spring 44 at SNI near OSLO. In Lug 44 it came to IT.LM and was stationed at SIMDRIGO near VICENZI. PW states that between surmer and winter 44 the unit gradually wound itself up and personnel were taken away from it, so that by Xmas there was nothing left. While in NORMAY the unit came u/c of 5 Intercept MQ, ST GER LIN, after arrival in IT.LY it was u/c of 7 Intercept MQ, REMANZE.

B. Organisation

The Sta was organised on the lines of a Coy, with an HQ, three pls, the Evaluation Sec with its sub-secs, and a supply col. HQ Coy was largely the OC's Office and the Orderly Room. The Pls were :

Intercept Pl (HORCHZUG) about 80-120 uen strong, equipped with about 30 sets, DF Pl (PEILZUG) which was not used in the field, Sigs Pl (N.CHRICHTENVERBINDUNCSZUG) about 20 men strong and equipped with WT sta, TP and LT oxchange.

The Evaluation Soc (LUSWERTUNG) was subdivided into: Contents Evaluation Sub-sec (INHALTS LW) Traffic Evaluation Sub-sec (VERLEHRS LW) Final Evaluation Sub-sec (END LW) Cryptographic Sub-sec (ENTLIFFLRUNG). Total personnel amounted to about 30 mm.

C. Tasks

PW states that the unit's tasks were to intercept traffic originated by the British rmy in Northern ENGLAND, SCOTLAND and the EAROES, and from summer 44 all Invession links; further all US Army links in ICELAND, all US fixed WT stas in the ATLANTIC area and the CARIBBEAN; also ME and INDLA traffic, and occasionally ATC traffic. In addition to this, the unit intercepted Succish rmy traffic and compleyed a (?) See of LT intercept specialists for listening in **to** telephone conversations across the Swedish border. Swedish rmy WT traffic and LT interception was done by a sub-unit of 9 Wixed Intercept Sta, called "Aussonstello [LALDEN" stationed at H.LDEN and attached for admin purposes to the H.LDEN Police Bn. The unit used the Folice En F.F.No. The WT side of the Aussenstelle had & to 10 sets at its disposal, whereas several "listening dets" (LAUSCHTRUPPS) were employed at or near the frontier crossings at KORNSJOE and East of IRONDHIEM. PW knew no further details on this side of the work and referred to 2/Lt WHELCKE as knowing technical details.

D. Ecuipment

PW know few dotails except that the unit equipment allowed interception of hand-key morse, a semi-automatic device called "BUG-TASTE", automatic transmitter traffic and WT TP (FURKFERNSCHEEIBVARKEAR). He mentioned WT Sjt (Funtmoister) RUDOLPH as export on WT TP intercept.

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6. MISCELL MEOUS

4. Oo-oporation with Japanese Crypto Sorvico

This existed officially, but in actual fact amounted to nothing. PW heard of only one instance in which some exchange of information took place. It was done in connection with an American field cipher machine captured by the Japanese.

B. Inter-Services Lieison in German Orypto Services

PW know - without being in possession of further details - of the existence of cryptographic services with the German OKM, OKH, OKH, OKH, OKH, the Foreign Office, and - he thought - with the SD as well. The latter certainly tried to take over from the OKH all the cryptographers dealing with ...gonts traffic (...GENTENFUNK) as it claimed that this was an SD matter. This is supposed to have happened sometime in 44, but PW did not know whether it happened when the Reichssicherheitshauptant took over the ..bychr, or not. In the end, due to the opposition put up by OKH IN 7/VI, a compromise was reached and west good cryptographers from the ...CENTEN Referat were transferred to OKW-CHI. ... Apart from trying to take poople or work from each other, the various crypto services rarely some extent, but nothing wad done in the way of working with OKM, least of all with OKW. The latter kept everything to itself and PW know of at least one instance where OKW had been in possession of some information and left OKH to find out things for itself.

C. "HONGKONG LIEDKE" Another Version of a Treason Story

Cf : CSDIC/CLF/Y 31 para 5.b)

This was the name under which people referred to the person (supposed to have been of British nationality) who had been brought to BERLIN in winter 41/42 to give some information of value to IN 7/VI, or perhaps the name of the person in OKH dealing with the matter (there was an Oberinspoktor LIEDNE i/e of the ENGLIND Referat at the time). The person concerned - of when it is not known whother he was a FW or not - gave some information regarding British methods of disguising indicator groups (KENNGRUPPEN) in traffic, also a description of a method of recognising the type of code in which traffic was sont according to the number of symbols in parconigran groups.

PW states that ho is cortain no practical use could be made of the information given, but does not know whother this was because the person concerned pulled the log of the Germans or whother his information did not fit the material to which it was applied. He stated that Dr. SCHULZ and Oberinspektor ZHILMIN (see para 7 a and CSDIC/CMF/Y 30 para 4 respectively) could give more information on the subject.

7. PERSONALITIES (Cf : CSDIC/CLE/Y 30 para 4)

(a) OKH IN 7/VI

Sondorfuchrer Oborbaurat Dr SCHULZ

Dr STEINBERG

Head (Laiter) of ENGLIND and HERICL Referat since autumn 44. Mathematician.

Described by DOST and COELER as Sonderfuchrer STERDARG. Since 45 hetd of the LERIC. and SWEDEN Referat till auturn 44, then the former were analgamized with the ENGLIND Referat under SCHULZ above. Expert on US. and Swedish machine ciphers. In auturn 44 went to ONW-CHI. - 8 -

ciphers.

OKW-CHI.

fluently.

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Morked with Dr STEINBERG on machino |

C._ and expert on machine cipher.

Specialist C., on Slav (SE EUROPE) traffic,

mainly TITO matorial. Ex-employee of the Lustrian Federal State till 1938.

In AGENTEN Reforat. Specialist in ... Jents codes and ciphers. In 44 went over to

Worked in ENGLAND Referat in 42. Later on moved to TURKEY (?) Soc. Has lived in TURIEY for a long time and speaks Turkish

In ENGLAND Referat in 42, later in RUESI ...

CA in FRAMEREICH Referat. Specialist in French codes and ciphers, incl machine

ciphers. Not related to COELER, subject

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Dr PIETSCH

Oberregierungsrat BATLOVIC

LUZIUS or LUCIUS Dr Dr (? Lt) F.UCK

CSLI (Wh) ST.DE

Sonderfuchrer (G) FEUCHT(L)INGER

Sonderfuchrer KOELER

Lieut MOTULLO

2/Lt BUEKER

Insp REINECKE

2/Lt THIELCKE

Insp PFITZER, Ernst

Cpl CHRIST Horbert

Cpl HENSEN Helmut

WT Sjt (Funkticister) RUDOLPH

(b) 9 Fixed Intercopt Station Licut van der LEEDEN, James

OC Coy, 9 Fixed Intercept Sta till Aug 44. Later either at 5 Intercept H9, ST GERLIN or at EUSKIRCHEN FESTE HORCHSTELLE, nr COLOGNE. ... German of Dutch origin.

Succeeded van der LEEDEN above.

No further particulars known.

of reports Y 30 and 31.

OC Intercept Pl till autumn 43.

Hoad of the Evaluation Soc (CHEF DER AUSWERTUNG). A specialist on British WT traffic, has sorved at the FESTE HORCHSTELLE at MUENSTER.

Head of Cryptographic Sub-see (CIEF der INTZIFFERUNG). Has served at the FLSTE HORCHSTELLE STUTTG.RT. Is a specialist on French codes and ciphers.

> OC Aussenstelle HALDEN and head of "SWEDEN Rocce" (CHEF DER AUSSENSTELLE HILDEN UND LEITER DER SCHWEDENLUFKLEERUNG). Should be ablo to give information on Swedish LT intercept and codes.

Expert on WT TP intercoption. Believed to live in FULD ...

Ex 9 Fixed Intercept Sta. Specialist on British codes and ciphers.

Ex 9 Fixed Intercept Sta. Specialist in Swedish codes and ciphers.

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Cpl CIRISTMINN In 9 Fixed Intercept Sta. No further details known. Opl L.CKNER C. Cpl HOFFENREICH C. Swedish Specialist. L/Cpl SCHULELINN Cir. L/Cpl J.NSEN Cii. L/Cpl W_LBRUECK Cia. L/Cpl SCHOTT C4 ... L/Cpl SOHROEDER C L/Cpl MODERY 0.... L/Cpl HELD Cir. (c) 7 Intercept HQ 2/Lt EGGERS In 44 was Evaluation Officer (AUSWERTE-OFFIZIER) in 7 Intercept HQ, in Jan 45 was sont to 1 Fixed Intercept Sta (ERIC). In 42 was in ENGLAND Referat of IN 7/VI. CSM (Wra) HIRTH French specialist at 7 Intercept Evaluation Sec. Cpl ACKERMINN, Wolf In 7 Intercopt Evaluation Sec. Ex 9 Fixed Intercept Sta. Is a mathematician. Cpl DINIEL, Honry In winter 44-45 joined 7 Intercept Evalua-tion Sec. Formerly in 9 Fixed Intercept Sta. It a specialist on US. codes and ciphers. Desorted to Partisans with Pa in Mar 45. After the collapse got job as interpreter with a unit in 10 US 11th Div, later used as interpretor with "N" Coy, 1 Bn, 351 Inf Rogt, 88 US Div. Should be in the BRESCL. area now. Has written a report on MIL.N, in which he must have given his addross. Was with D.NIEL and PW when they deserted ? WENNIGER, Horibort to Partisons. No further details known. (d) Miscellanoous Cpl FLICK $\Omega_{\rm A}$ and mathematician in 5 Intercept HQ in 43. Invonted special apparatus for work on an US_ cipher machine.

A.G.B.